

**REMARKS AND RESPONSE TO RESTRICTION REQUIREMENT**

Claims 44-72 are pending in the instant application. Claims 48-72 have been canceled without prejudice as directed to non-elected inventions. New claims 73-105 have been added. Support for new claims 73-105 can be found, for example, in the claims as originally filed. Thus, upon entry of the foregoing amendment, claims 44-47 and 73-105 will be pending in the instant application.

No new matter has been added. Applicants request that the amendments to the claims be entered. The foregoing claim amendments and cancellations should in no way be construed as an acquiescence to any of the Examiner's rejections and were made solely to expedite prosecution of the present application. Applicants reserve the right to pursue the claims as originally filed in this or a separate application(s).

***Election/Restriction***

The Examiner has required restriction of the invention under 35 U.S.C. § 121 to one of the following groups:

**Group I:** Claims 1-31 and 34-35, drawn to methods for identifying an insulin response modulator, classified in class 435, subclass 7.1.

**Group II:** Claims 32 and 42, drawn to a modulator of insulin response and a pharmaceutical carrier, classified in class 514, subclass 1.

**Group III:** Claim 36, drawn to a method of modulating GLUT4 translocation in a subject, classified in class 435, subclass 7.1.

**Group IV:** Claim 37, drawn to a method of enhancing glucose clearance in an insulin resistant subject, classified in class 424, subclass 9.2.

**Group V:** Claim 38, drawn to a method of regulating blood glucose levels in a subject, classified in class 424, subclass 9.2.

**Group VI:** Claims 39 and 40, drawn to an antibody that binds IRAP and a pharmaceutical composition containing the same, classified in class 424, subclass 1.49.

**Group VII:** Claim 41, drawn to an antibody that binds TAP, classified in class 424, subclass 130.1.

**Group VIII:** Claim 43, drawn to a pharmaceutical composition containing an IRAP-interacting domain of TAP, classified in class 514, subclass 2.

**Group IX:** Claim 44, drawn to a method for identifying a compound used for diabetes treatment by using a cell that expressed TAP mRNA, classified in class 435, subclass 6.

**Group X:** Claims 45-47, drawn to a method for identifying a compound used for diabetes treatment by using a cell that expressed TAP protein, classified in class 435, subclass 7.1.

**Group XI:** Claims 48 and 49, drawn to a compound and pharmaceutical carrier that treats diabetes, classified in class 514, subclass 2.

**Group XII:** Claims 50-52, 61-65 and 66-67, drawn to a method of increasing TAP expression in a subject, classified in class 424, subclass 9.2.

**Group XIII:** Claims 53-56, drawn to a method of treating diabetes by administering a compound that increases TAP expression in a subject, classified in class 424, subclass 9.2.

**Group XIV:** Claims 57-59, drawn to a method of treating insulin resistance by administering TAP DNA or various viruses to a subject, classified in class 424, subclass 93.1.

**Group XV:** Claims 57, 58 and 60, drawn to a method of treating insulin resistance by administering to a subject TAP proteins, classified in class 435, subclass 7.1.

**Group XVI:** Claim 65, drawn to a pharmaceutical composition containing cells that overexpress TAP, classified in class 514, subclass 44.

**Group XVII:** Claims 68-71, drawn to a method for treating a subject with diabetes or insulin resistance, classified in class 435, subclass 6.

Applicants respectfully submit that the Examiner has erred in including claims 1-43 among the claims subject to restriction. Applicants wish to point out that claims 1-43 (Groups I-VIII) were canceled in a Preliminary Amendment filed July 25, 2003, the date that the application was originally filed, and were no longer pending at the time that the Restriction Requirement (Paper No. 11192004) was issued. Moreover, claim 72 was added in the Preliminary Amendment filed July 25, 2003, and this claim was not considered in the Restriction Requirement. Thus claims 44-72 were pending at the time the Restriction Requirement was issued, and should rightfully have been the subject matter of the instant action.

In order to advance prosecution, Applicants hereby elect the Group X invention (claims 45-47) under 35 U.S.C. § 121 for prosecution in the present application, *with traverse*. Applicants traverse the restriction requirement to the extent that Groups IX and X should be reformed as a single group. Applicants' grounds for traversal are set forth below.

It is Applicants' position that searches of the subject matter of Groups IX and X (newly formed Group X) would be coextensive and there would be no undue burden on the Examiner to search the subject matter of the two groups. In particular, Applicants note that Groups IX and X each include claims directed to methods for identifying a compound suitable for use in treating diabetes or insulin resistance in a subject. The individual Groups IX and X are specific for the endpoint measured in evaluating the effect of the test compound on TAP, the endpoints being TAP mRNA (Group IX) or protein (Group X). In view of the relatedness of the claimed subject matter, it is Applicants' position that search and examination of the claimed subject matter can be made without undue burden on the Examiner. In particular, Applicants submit that a search with respect to the expression levels of the molecule TAP would identify art relevant to the claims of Groups IX and X. As such, Applicants respectfully request that Groups IX and X be reformed as a single group containing Claims 44-47.

With respect to the newly added claims 73-105, Applicants respectfully submit that the subject matter of claims 73-105 and newly formed Group X (Groups IX and X) constitutes related subject matter that should be appropriately examined together. In particular, Applicants note that claims 73-105 are directed to methods for identifying an insulin response modulator, where the methods claimed involve steps and endpoints measured to evaluate the effect of a test compound which are similar to the steps and endpoints of the claims of newly formed Group X (Groups IX and X). In view of the relatedness of the claimed subject matter, it is Applicants' position that search and examination of the claimed subject matter can be made without undue burden on the Examiner. As such, Applicants respectfully request that new claims 73-105 be grouped with newly formed Group X (Groups IX and X) as a single group containing Claims 44-47 and 73-105.

Applicants reserve the right to traverse the restriction between the non-elected groups in this or a separate application.

#### SUMMARY

Applicants respectfully submit that the above-identified application is in condition for allowance. If a telephone conversation with Applicants' attorney would expedite prosecution of the above-identified application, the Examiner is urged to call Applicants' Attorney at (617) 227-7400.

Applicant believes no fee is due with this statement. However, if a fee is due, please charge our Deposit Account No. 12-0080, under Order No. ADY-001B, from which the undersigned is authorized to draw.

Dated: June 13, 2004

Respectfully submitted,

By

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